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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/609,024	06/30/2003	Juhn-Suk Yoo	053785-5129	8361
9629	7590	10/29/2004	EXAMINER	
MORGAN LEWIS & BOCKIUS LLP 1111 PENNSYLVANIA AVENUE NW WASHINGTON, DC 20004			LEE, HSIEN MING	
			ART UNIT	PAPER NUMBER
			2823	

DATE MAILED: 10/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/609,024	Applicant(s) YOO ET AL.	
	Examiner Hsien-Ming Lee	Art Unit 2823	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13-18 is/are allowed.
- 6) ☒ Claim(s) 1,2,4,6-8,10 and 12 is/are rejected.
- 7) ☒ Claim(s) 3,5,9 and 11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

HSIEN-MING LEE
PRIMARY EXAMINER

10/6/04

Attachment(s)

- | | |
|---|---|
| <p>1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)</p> <p>2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</p> <p>3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>102804</u>.</p> | <p>4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. <u>102804</u>.</p> <p>5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)</p> <p>6) <input type="checkbox"/> Other: _____.</p> |
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DETAILED ACTION

Remarks

1. The double patenting rejection, as set forth in the previous office Action, is withdrawn in response to the arguments submitted in the phone interview on 10/13/2004.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2, 4, 6, 7, 8, 10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee (US 6,088,072) in view of Takahiko et al. (JP 11-038445, submitted by applicant).

In re claims 1, 2, 7, 8, Lee teaches a related method and a device, comprising:

- forming a gate electrode 117 on a substrate 111 (Fig.5a);
- forming a gate insulating layer 129 on the substrate 111 including the gate electrode 117 (Fig.5c);
- forming a semiconductor layer 131/133 on the gate insulating layer 129 over the gate electrode 117 (Fig.5d);
- forming a source electrode 127 and a drain electrode 137 on the semiconductor layer 131/133, wherein the source 127 and drain 137 electrodes are spaced apart from each other and respectively overlap portions of the gate electrode 117;

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- forming a passivation layer 135 to cover the source 127 and drain 137 electrodes, the passivation layer 135 having a drain contact hole 171 to expose a portion of the drain electrode 137 (Fig.5e); and
- forming a first electrode 139 on the passivation layer 135, the first electrode 139 being electrically connected to the drain electrode 137 through the drain contact hole 171 (Fig.5f)

In contrast, Lee fails to teach that the overlapping area between the gate electrode and the source electrode is **larger** than an overlapping area between the gate electrode and the drain electrode.

However, Takahiko et al. teach forming a light emitting device, wherein the gate electrode 21 and the source electrode 23 is **larger** than an overlapping area between the gate electrode 21 and the drain electrode 22 (Fig.10).

Therefore, it would have been obvious to one of the ordinary skill in the art, at the time of the invention was made, to combine Lee with Takahiko et al. to arrive the claimed invention, since by this manner it would increase the parasitic capacitance between the gate electrode and the source electrode (abstract, Takahiko et al.).

In re claims 4 and 10, Lee also teach that the semiconductor layer 131/133 has an active layer 131 and an ohmic contact layer 133 (Fig.5d).

In re claims 6 and 12, Lee further teaches that the ohmic contact layer 133 has a portion exposing a part of the active layer 131 (Fig.5d).

Allowable Subject Matter

4. Claims 3, 5, 9, and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. Claims 13-22 are allowed.

6. The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record at least neither teaches nor suggests that the overlapping area between the gate electrode and the source electrode forms a storage capacitor for driving a pixel (claims 3 and 9); and forming an organic light emitting layer on the first electrode and forming a second electrode on the organic light emitting layer (claims 13 and 18).

97. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hsien-Ming Lee whose telephone number is 571-272-1863. The examiner can normally be reached on Tuesday-Thursday (8:00 ~ 6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Olik Chaudhuri can be reached on 571-272-1855. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hsien-Ming Lee
Primary Examiner
Art Unit 2823

Oct. 28, 2004

HSIEN-MING LEE
PRIMARY EXAMINER

the
10/28/04